

HANDICAPPED RULES AND REGULATIONS

(EXCERPTS FROM THE IOWA STATE BUILDING CODE, HANDICAP SECTION)

680-16.705(103A) Building accessible to the general public.

16.705(1) *Ramps with gradients.* Any part of an accessible route with a slope greater than 1:20 shall be considered a ramp and shall conform to the following specifications:

a. *Slope and rise.* The least possible slope shall be used for a ramp. A ramp when necessary or required shall have a slope not greater than one foot rise in every 2 feet or 8.33 percent or four degrees fifty minutes. The maximum rise for any run shall be thirty inches. When space limitations prohibit the use of a 1:12 slope or less curb ramps, other than those located within street rights-of-way, having a slope greater than 1:10 but not greater than 1:8 shall have a maximum rise of three inches and a maximum run of two feet. Such curb ramps having a slope greater than 1:12 but not greater than 1:10 shall have a maximum rise of six inches and a maximum run of five feet.

b. *Handrails.* A ramp shall have smooth handrails on both sides that are thirty-two inches in height measured from the surface of the ramp, and extend one foot beyond the top and bottom of the ramp. The inside handrail on switchback or dogleg ramps shall always be continuous. The diameter or width of the gripping surface of the handrail shall be 1¼ inches to 1½ inches. If the handrail is mounted adjacent to a wall, the space between the wall and the handrail shall be 1½ inches. Curb ramps having a rise greater than six inches shall have handrails which meet the requirements of the subrule.

c. *Surface.* Ramp and curb ramps shall have a non-slip surface.

d. *Level platform.*

(1) A ramp shall have a level platform at the top which is at least five feet deep by five feet wide if a door swings out onto the platform or toward the ramp. This platform shall extend at least one foot beyond each side of the doorway.

(2) A ramp shall have a level platform at least three feet deep and at least the width of the ramp if the door does not swing onto the platform or toward the ramp. The platform width shall be increased to provide operation clearance as required by 16.705(4).

e. *Bottom clearance.* Each ramp shall have at least five feet of straight clearance at the bottom.

f. *Intermediate landings.* Ramps shall have level intermediate landing for purposes of rest and safety wherever they turn, and at intervals not to exceed thirty inches of rise. The intermediate landing shall have a dimension of at least five feet measured in the direction of travel.

g. *Ramp width.* The minimum clear width of a ramp shall be thirty-six inches.

16.705(2) *Entrances.* Because entrances also serve as exits, some being particularly important in case of emergency, and because the proximity of such exits to all parts of buildings and facilities in accordance with their design and function is essential, an effort should be made to make all or more entrances accessible to persons in wheelchairs or other forms of disabilities. (See Figure 4)

The primary entrance or entrances at grade level to each facility shall be usable by persons in wheelchairs and other physically handicapped persons. Such an entrance or any entrances shall be on a level that shall make the elevators, if any, accessible from that level.

Buildings or facilities which do not have an entrance at grade level (such as additions or additional floors) shall provide an entrance accessible to persons in wheelchairs at the level accessible to other persons which will provide accessibility to the building or facility.

16.705(3) *Accessibility within buildings and facilities.* Except as is noted in the footnotes for those occupancies listed in Table 705A at the end of this division, all building and facilities shall be accessible and functional for the physically handicapped throughout. The occupancies mentioned in the table are the same as provided in the Iowa State Building Code. Any occupancy

not mentioned specifically or about which there is any question shall be classified by the State Building Code Commissioner and included in the group which its use most nearly resembles. Required accessible to floors other than those closest to ground level shall be within the building or facility. For purposes of this rule, any skywalk or similar system...

EXCEPTION: Accessory floors, where seating or standing areas are furnished within a room or main floor on a story for specific facilities or functions, e.g. restaurants, lounges, or retail sales areas, such accessory floors need not be accessible within that room or main floor level located on that story. (Note: For purposes of this subrule, accessory floors are those small area/areas of a main floor level which are less than four feet above or below the main floor).

16.705(7) *Elevators.* When provided, elevators shall be accessible and usable by the physically handicapped at all levels normally used by the general public. Elevators shall have control buttons with identifying features for the blind and shall allow for wheelchair traffic. (See Figure 6.)

16.705(8) *Toilet facilities.* At each floor level which is accessible to the physically handicapped and where toilets or bathroom facilities are available, an appropriate number (at least one) of such facility shall be accessible to and usable by the physically handicapped. When separate facilities are provided for each sex, accessibility to the physically handicapped shall likewise be provided for each sex. An appropriate number of water closets, urinals (when provided), showers or bathtubs (when provided), lavatories, mirrors, towel and disposal fixtures, and other dispensers, shall be provided in each facility, required by the remainder of this section. (See Figures 7 and 11.)

NOTE: Figures 7 and 11 are included to indicate the current recommendations of ANSI A117.1-1980. Some dimensions shown exceed the requirements of this Code.

A. *Access.* Toilet rooms, bathrooms, and water closets shall have a clear and unobstructed access of not less than thirty-two inches in width and a clear space unobstructed by door swing, grab bars, and similar items of not less than thirty-two inches shall be provided in front of the water closets, which are accessible to the physically handicapped.

Toilet rooms and bathrooms shall have space to allow traffic for individuals in wheelchairs.

b. *Grab bars.* Grab bars or handrails shall be provided for water closets, bathtubs or showers, accessible to the physically handicapped. Grab bars for water closets shall be within easy reach (within approximately eighteen inches) of the water closet at the side and back, or on each side shall be at a usable height (approximately thirty-three inches above the floor). (See Figures 5, 7 and 11.) Grab bars on the side of water closets shall be mounted so that there is a minimum of fifty-two inches from the front end of the grab bar and a maximum of twelve inches from the rear end of the grab bar and the wall behind the water closet. The grab bar for the back of the water closet shall have a minimum length of thirty-six inches. The diameter or width of the gripping surfaces of the grab bar shall be 1¼ inches to 1½ inches. If grab bars are mounted adjacent to a wall, the space between the wall and the grab bar shall be 1½ inches.

c. *Compartments.* In toilet rooms which have water closet compartments, those compartments which are accessible to the physically handicapped shall:

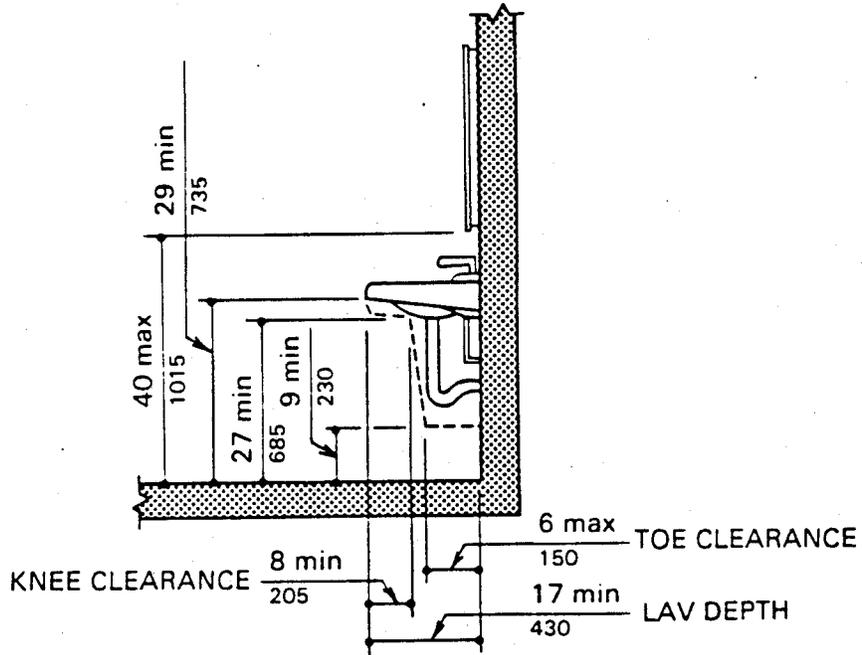
(1) Have an unobstructed space not less than thirty-two inches in width and depth in front of the water closet.

(2) Have grab bars or handrails as described in "b" above.

d. *Lavatories.* Lavatories which are accessible to the physically handicapped shall, except for the projection of bowls and waste piping, have a clear unobstructed space at least thirty inches in width, twenty-nine inches in height above the floor, and shall provide the toe clearance having a minimum height of nine inches and a minimum depth of seventeen inches. Hot water and drain pipes under lavatories shall be insulated or otherwise covered. There shall be no sharp or abrasive surfaces under lavatories. (See Figure 7.)

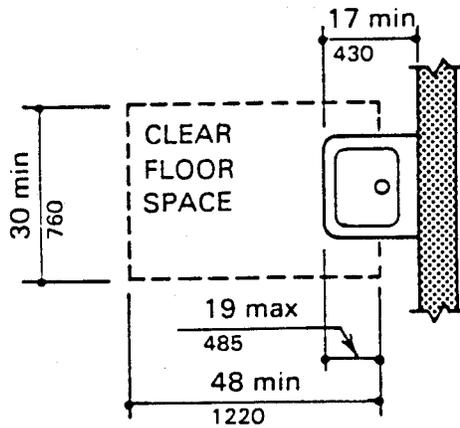
f. *Urinals.* Urinals which are accessible to the physically handicapped shall be stall type or wall-hung with an elongated rim at a maximum of seventeen inches above the floor.

g. *Other fixtures.* Where mirrors, towel and disposal fixtures and other dispensers are provided, at least one shall be installed so that the bottom of the mirror is within forty inches of the floor, and the other fixtures are within forty inches of the floor. Tilt mirrors may be used if the mirrors are installed so that the bottom of the mirror is within forty-four inches of the floor and provides an equivalent field of view.



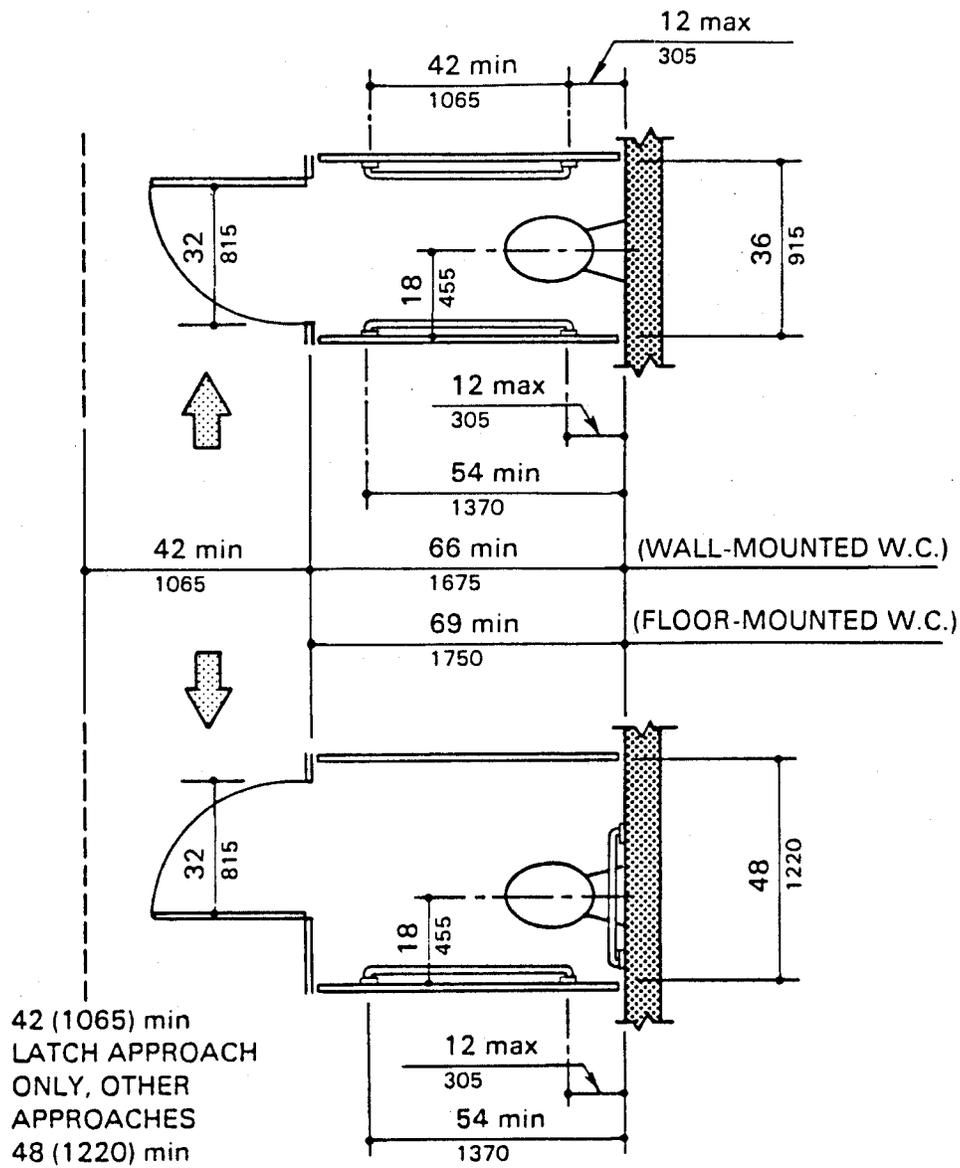
NOTE: Dashed line indicates dimensional clearance of optional underlavatory enclosure.

Lavatory Clearances

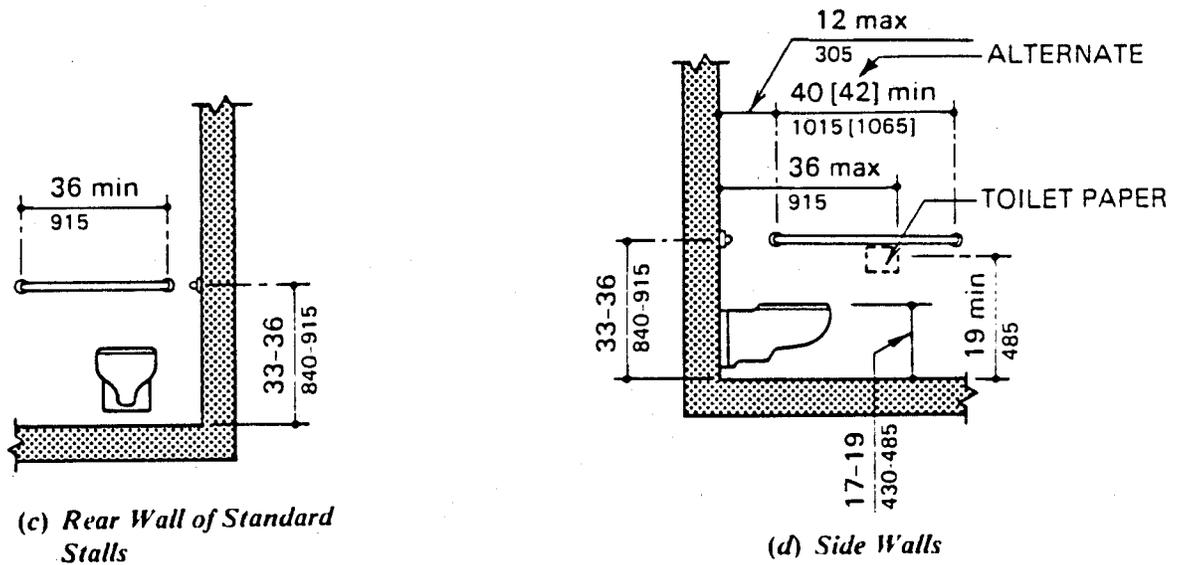


Clear Floor Space at Lavatories

FIG 7



(b) Alternate Stalls

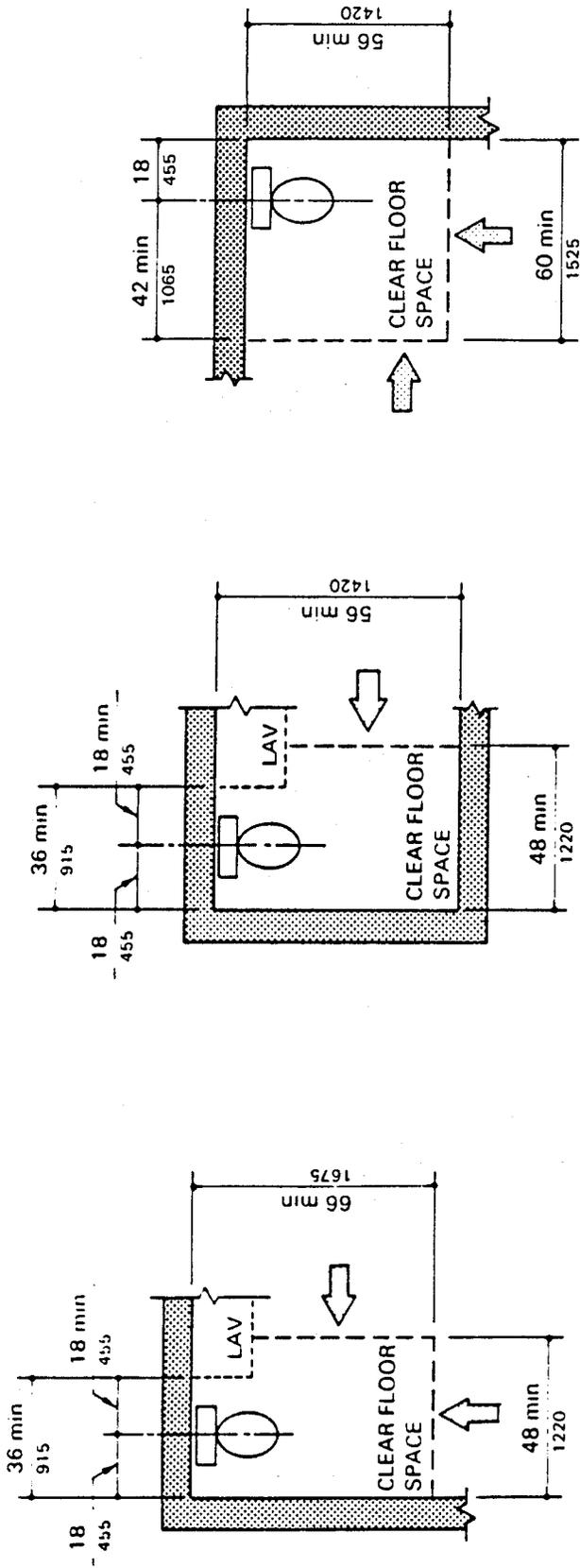


(c) Rear Wall of Standard Stalls

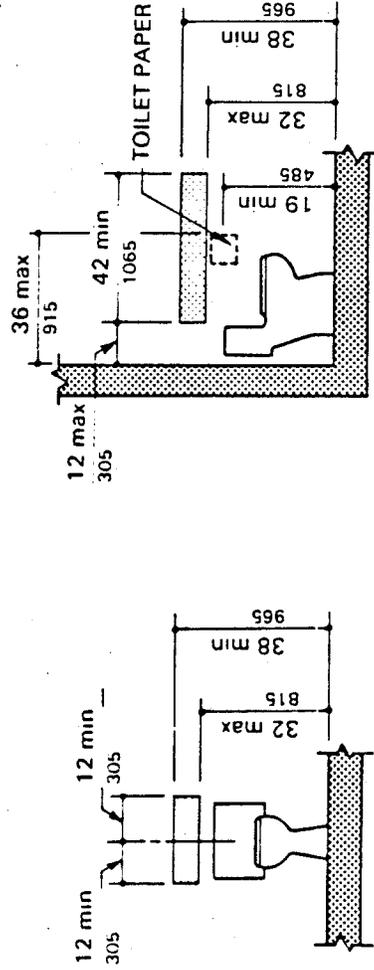
(d) Side Walls

Toilet Stalls

FIG 7



(a) Clear Floor Space for Adaptable Bathrooms

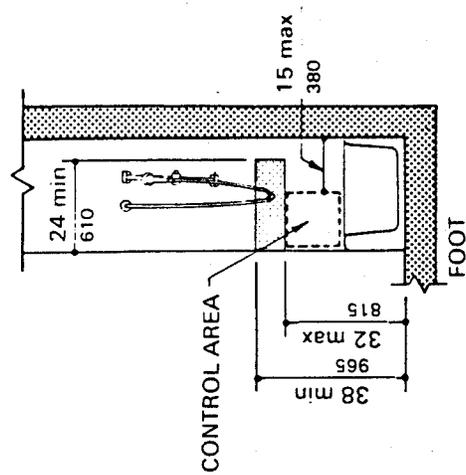
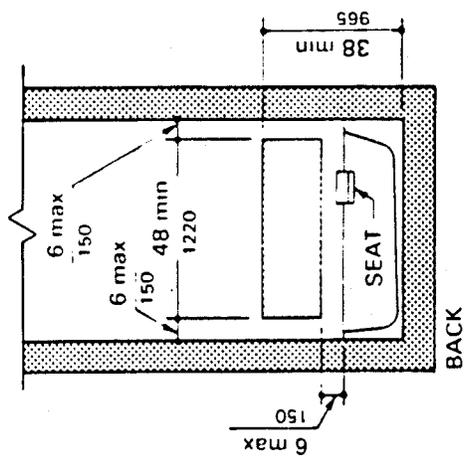
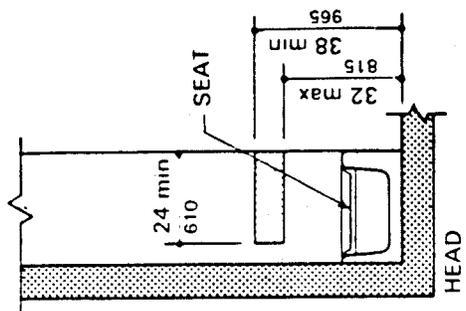


NOTE: The lightly shaded areas are reinforced to receive grab bars.

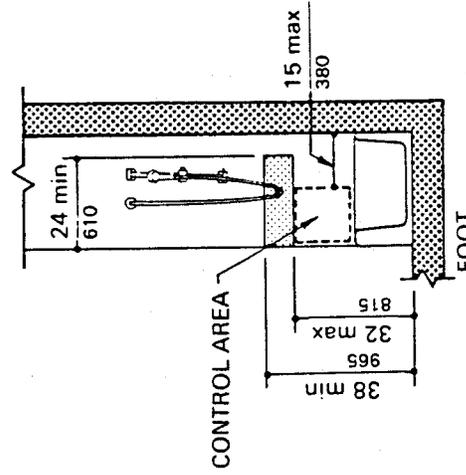
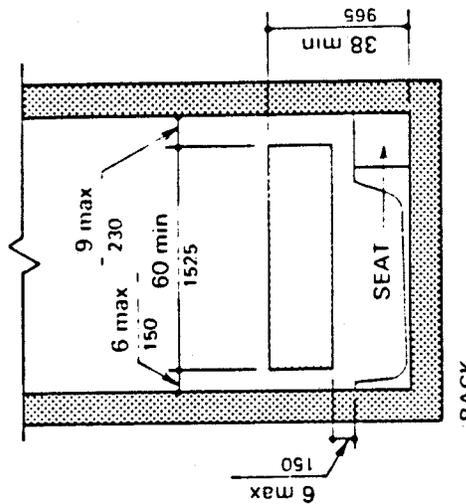
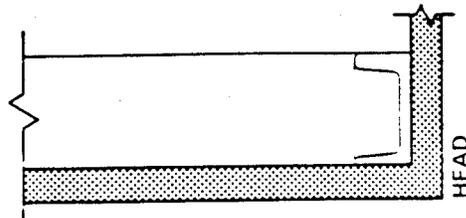
(b) Reinforced Areas for Installation of Grab Bars

Water Closets in Adaptable Bathrooms

FIG 11



(a) With Seat in Tub

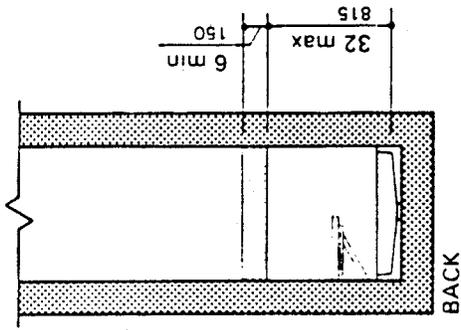
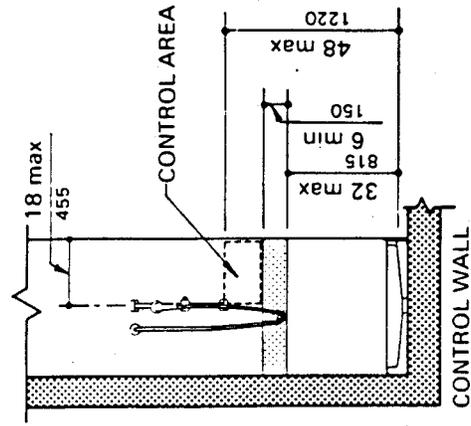


(b) With Seat at Head of Tub

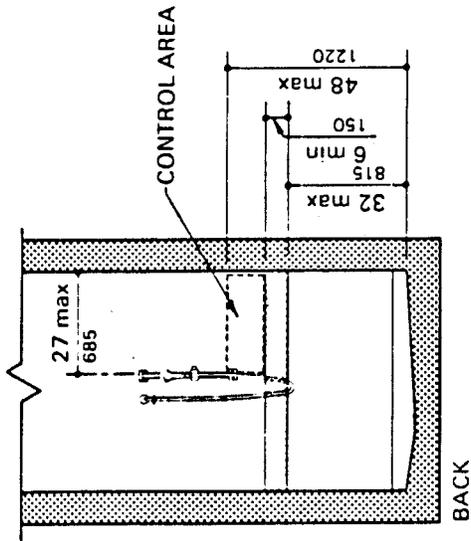
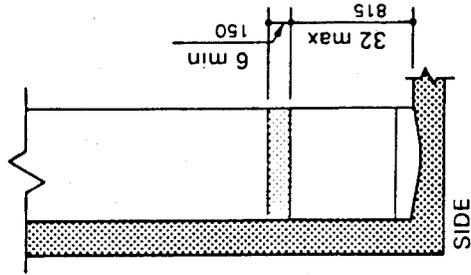
NOTE: The lightly shaded areas are reinforced to receive grab bars.

Location of Grab-Bar Reinforcements and Controls of Adaptable Bathtubs

FIG 11



(a) 36-in by 36-in (915-mm by 915-mm) Stall



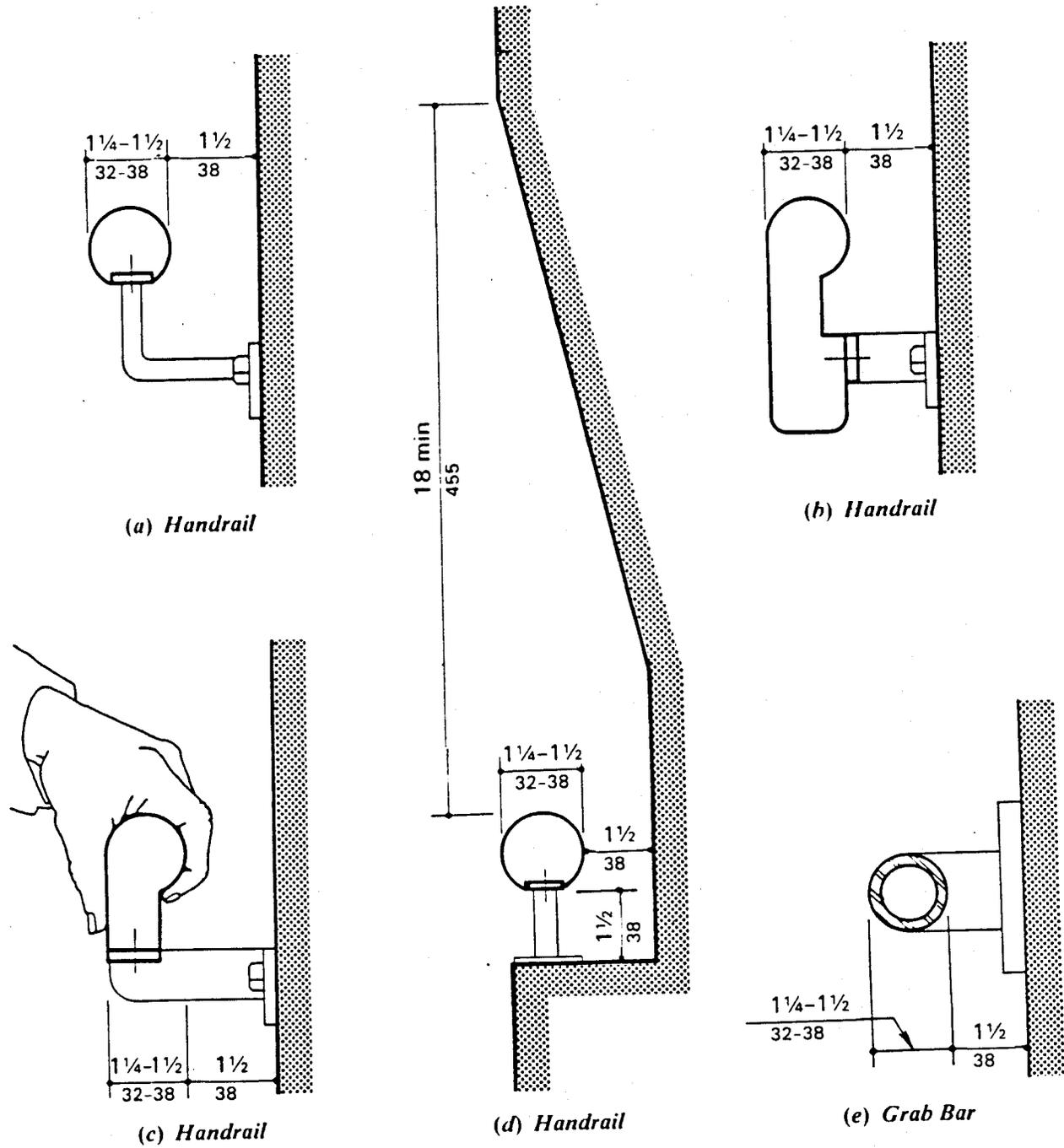
(b) 30-in by 60-in (750-mm by 1525-mm) Stall

NOTES:

- (1) The lightly shaded areas are reinforced to receive grab bars.
- (2) In Fig. 49(b), shower head and control area may be on back wall (as shown) or on either side.

Location of Grab-Bar Reinforcements and Controls of Adaptable Showers

FIG 11



Size and Spacing of Handrails and Grab Bars

FIG 5